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The Worden gravimeter is considered a strategic item for which shipment to any country within the Soviet Bloc would be considered adverse to US security interests. This gravimeter is a field instrument widely favored for making relative determinations of gravity at many points on the earth's surface. The data collected are used for improving geodetic control and the accuracy of maps. It is in the interests of our Government to impede such activity by the Soviets. As of today, the Soviets do not have, to our knowledge, an instrument comparable to the Worden gravimeter that combines portability, simplicity of use, and accuracy. We know that they have had a troublesome drift-rate problem and that, for this and other reasons, they have made attempts to obtain two Worden gravimeters in order to master the unique and undisclosed features of the quartz member and assembly. Soviet capability for gravity data collection would be increased if Worden gravimeters came into their hands. It is suspected that the Worden gravimeters desired by the Poles are likely to reach the Soviets, particularly because the Polish request was within the framework of the IGY Program, whereas Polish commitments for observations within this Program do not require an instrument of the Worden type.

An earth tide recorder of the LaCoste-Romberg type is an appropriate instrument for the Poles to use for fulfilling commitments for their gravity observations under the IGY Program. The LaCoste-Romberg recorder measures gravity with a high order of accuracy but, because of its complexity, is not a portable instrument and, therefore, is not intended for measuring relative values from point to point. Earth tide data have no military significance because they are not usable for geodetic or targeting purposes.